

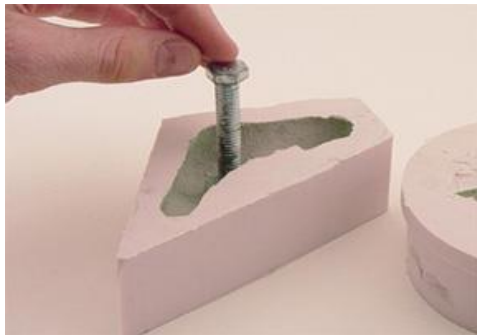
Casting Climbing Holds



Picking up where we left off from making our own rock climbing hand hold molds, we'll now walk you through how to cast them. We have two different types of molds, first the a standard mold with a silicone stem and secondly a mold where we use the actual bolt to act as the stem to our hold.



If you are going to use a bolt for the stem it is very important that you mold release the bolt. Alumilite's casting resins will bond to metal unless it is mold released. We use Stoner Urethane Mold Release which works exceptionally well for making sure the bolt releases from the casting.



Insert the bolt back into the stem hole after it has been sprayed with mold release.



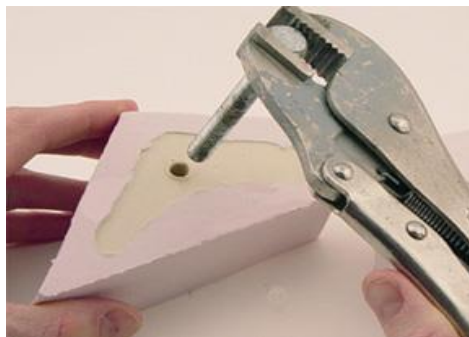
The next step is to mix Alumilite casting resin. The mix ratios of most of our resins are 1:1 by weight or by volume. Mix the resins thoroughly until no swirls are left in the mix container. The resins are non toxic and very easy to use. They mix and pour like water making them extremely user friendly. Mix the resin thoroughly for 20-30 seconds.



Once the resin is mixed thoroughly, pour the resin into your molds. On the right you can see the mold that is using a silicone stem and the mold on the left has the bolt as the stem.



Alumilite resins will change color as the materials cure. This is at the 90 second point with the Alumilite Regular. The resins go from a translucent coffee color to an opaque tan color (natural color with no dye added - obviously if you add dye, the before and after cure colors will change).



Shortly after the resin changes color, remove the bolt with a pair of vice grips or pliers. I would recommend doing this within a minute or two of the resin changing color. If you wait too long, you will have to unscrew the bolt.



Wait another minute or two, flex the mold, and remove your first hold. You can see there is a slight bit of light green picked up in the hold. The light green is the foam from the original foam hold. You will only pick up a slight amount of foam in your first couple holds. The foam that is being picked up is solely due to the silicone grabbing hold and encapsulating some of the foam when it was seeping into all the pores and texture of the foam original. When you pour the resin into the mold, it bonds and picks up the foam and pulls it out of the mold. If you are looking to make more of the same hold in the future, take your first clean casting and put it in a shoe box to be used for your master the next time you need to make a mold.



Here you can see the original hold castings (tan with slight green areas) along side of two more colored castings (one green and one blue) made out of the new mold. So now you can design and make your very own rock climbing hand holds. Both mold methods work exceptionally well. If you are looking to do long term production runs of holds, you may want to consider using the bolt method. If you are just starting out and are looking to experiment with making your own holds or just want to make enough to fill a wall or two, I would definitely recommend the easier method of simply pouring the rubber around the original and using a silicone stem.